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School funding ten years after Michigan's proposal A: Does equity equal adequacy?

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Michigan's school finance reform aimed primarily to improve the equity in funding across school districts. Now, policymakers are turning their attention to the adequacy of education—ensuring that schools provide a desired level of learning and the necessary resources to support student achievement.

Although it has achieved greater funding equity and per pupil expenditure levels above the national average, Michigan's reform is not problem-free.

It has been ten years since the state of Michigan adopted Proposal A, a sweeping reform of school financing in the state. Like many states, Michigan had historically relied on local property taxes to pay for K–12 education. This had two consequences. Local property tax rates had risen considerably over time, becoming increasingly unpopular with voters, and disparities in school district funding had become acute. In July 1993, the state legislature eliminated the local school property tax that was responsible for $7 billion in annual school funding. In its place Michigan voters approved Proposal A, a constitutional amendment on school finance that shifted funding responsibility to the state. The new state funding package included raising the state's sales tax rate from 4% to 6%, cutting the personal income tax rate from 4.6% to 4.4%, and creating a state education property tax of 6 mills[1] (assessed valuation) on residential and agricultural property and 18 mills on nonhomestead property. A primary goal of the change in the finance system was to change the foundation allowance[2] for education provided by the state and to reduce the fiscal disparities between districts.

Ten years later, Michigan has made great strides in reducing fiscal disparity across its school districts. In 1994, 32 states had a more equal distribution of funding of per pupil revenues than Michigan. By 2000, only 17 states had a more equal revenue distribution.[3] In addition, the new funding structure has allowed Michigan to support current per pupil expenditure levels that are significantly above the national average and achieve some measure of improvement in student test scores, while reducing some fiscal pressure for schools in property poor districts such as the city of Detroit.[4]

Despite its having achieved greater funding equity and maintaining per pupil expenditure levels above the national average, Michigan's reform is not without its problems. From a financing point of view, the recent slowdown in state revenue sources has made increases in the basic foundation grant level more difficult. While property tax growth remained healthy over the 2001 recession and subsequent recovery, state tax bases such as sales and income were far more sluggish and less predictable. The revenues earmarked for the state's School Aid Fund have tended to lag, and the

state has had to transfer money out of the general fund to provide desired spending levels. Now that Michigan no longer enjoys a general fund budget surplus, transfers are no longer available. In addition, loss of local control over schools has been a source of friction. For the first three years following passage of Proposal A, local districts could adopt a local property tax levy of up to 3 mills to supplement state spending. This provision has expired, which has created tension in high-spending districts. Also, the structure for distributing revenues has created winners and losers among school districts. Money is allocated based on the school district's per pupil funding allowance and the number of pupils enrolled. In the case of schools with falling enrollments, the increase in the per pupil grant is often swamped by the effect of the declining student population. In addition, while operating revenues have been equalized, capital spending has not been affected. Schools with poor facilities (or start-up efforts like charter schools) have not received additional funding to improve the physical condition of their schools.

What's next in school finance reform? The quest for adequacy

Michigan's school finance reform was primarily designed to improve the equity in funding across school districts. Most efforts at school finance reform in the 1980s and early 1990s focused on improving funding equity as required by court actions. Today however, the school finance debate has moved beyond equalizing school funding to increasingly focus on the idea of "educational adequacy." The goal is to design a school financing system that assures that all students receive a desired level of learning and that financing provides the necessary resources to support student achievement. In this framework, school financing is linked to both student and school performance and differences in student characteristics, and regional costs are considered in determining the equitable level of funding for each school. The notion of tying financing to the adequacy of education emerged from several major court cases in the late 1980s and 1990s.[5]

The challenge of such an approach is defining adequacy, which involves both policy and value judgements. It requires defining a minimum performance level that schools are expected to meet and then calculating a financing structure that will provide schools with the resources to achieve that level. In several states, courts have set forth educational outcomes that are defining an adequate education. For example, the West Virginia Supreme Court in 1979 required that school funding be adequate to develop eight competencies, including literacy, basic numerical ability, knowledge of government, self-knowledge, work training, recreational pursuits, interest in the creative arts, and social ethics.[6] Other state courts and legislatures have defined similar lists, and a clear challenge is determining how to measure school performance in those attributes that are not captured on standardized tests. (See figure 1 for details of Wyoming's requirements.)

1. The Wyoming adequacy standards basket

Common core of knowledge
Reading/language arts, emphasized in grades 1 through 8
Mathematics, emphasized in grades 1 through 8
Social studies
Science
Fine arts and performing arts
Physical education
Health and safety
Humanities
Career/vocational education
Foreign cultures, including languages
Applied technology
Government and civics, including constitutions

Common core of skills
Problem solving
Interpersonal communications
Keyboarding and computer applications
Critical thinking
Creativity
Life skills, including personal financial management
Management

High school graduation requirements
Four years of English
Three years of mathematics
Three years of science
Three years of social science, including U.S. government, economic systems, institutions
Mastery of common core of knowledge, skills

NOTE: As adopted by the Wyoming Board of Education in 1990 and modified by the Wyoming State Legislature in 1997.

Guthrie and Rothstein (1999) describe three methods for calculating the cost of an adequate education. These are statistical analysis, empirical analysis, and professional judgement. Each technique has its advantages and disadvantages, and it might take a combination of approaches to achieve a consensus on what constitutes an adequate education. It is important to recognize that adequacy is an outcome- oriented measure. Critics of using adequacy as the sole measure of school effectiveness suggest that the cost and efficiency of producing a given level of achievement should also be considered.

Method 1: Statistical analysis

Statistical methods try to associate an appropriate level of student performance with a level of spending. More specifically, they can also be used to infer what component parts of school structure and curriculum contribute to school performance and prescribe the level of funds needed to provide these elements. Another strength of statistical techniques is that they allow researchers to control the social and economic characteristics of students and, thereby, create funding formulae that can compensate for specific student characteristics. However, while this method yields an estimate of the costs of producing a particular student performance level, it does not provide information about whether the subsequent spending is efficient in practice.

From a methodological perspective, statistical methods tend to become very complicated when one tries to include student achievement measures such as test scores. This leads to disputes about the prescriptive accuracy of the estimates. For example, a study

of the New York City school system found that education spending would need to be 3.5 times the current state average to produce adequacy. A study of the Milwaukee school system suggested that spending would need to be at a level that was twice the state average.[7] Even if these estimates were correct, achieving the required changes in school funding would face difficult political challenges.

Method 2: Empirical analysis

In contrast to statistical methods, empirical analysis sets a level of performance that is defined as being adequate and then identifies schools that produce these outcomes, rather than statistical characteristics. It then assumes that the level of spending in that school is adequate. Empirical analysis is particularly concerned with identifying the programs and characteristics found in high performing schools. This approach usually begins by defining a restricted sample of schools that excludes schools with extremes of property wealth or per pupil spending, in order to reduce distortions in the sample. The restricted sample is then ranked according to student performance. A measure of what constitutes adequate performance is defined, e.g., 70% of the students scoring a passing grade on a standardized test.

Then the characteristics of the schools that are ranked as "adequate" are examined. These characteristics might include class size, school size, and types of course offerings. In many cases, this method identifies not just what the total spending is on education, but what the cost is of funding specific characteristics of effective schools. This approach was used in 1996 by the Illinois Commission on Education to identify financing levels for Illinois schools; however, the state did not adopt the recommendations from the study.

Critics of empirical analysis cite two issues. First, school performance may reflect past expenditures rather than current spending levels. Schools that have benefited from historically high spending levels may be able to maintain high performance with a lower financial effort than schools that are trying to catch up from low spending levels. Second, such an approach can lead to school standardization that favors replicating the characteristics of high performing schools even if they are not appropriate for local circumstances. Most importantly, by neglecting student characteristics, this method may give short shrift to student populations in communities that do not adequately prepare students for school.

Method 3: Professional expert

The professional expert method relies on the experience of education and other professionals to identify what constitutes an effective school and assign costs to the characteristics of that school. For example, Chambers and Parrish (1994) developed a resource cost model based on the assessment of teachers, administrators, and public officials of what resources are necessary for an appropriate education.[8] In their work in Illinois they identified such characteristics as limiting class size in grades 1 through 3 to 22 students, limiting the caseload of a speech therapist to 62 pupils, and heating and cooling school buildings to a temperature of 70 degrees year round. In this instance, the participants were instructed to limit their proposals for changes in school policy to those that could be achieved affordably. Given this considerable constraint, the final cost of implementing the changes identified in the study would have required a 2% increase in school funding.

Professional expert studies are often combined with statistical methods to develop location specific cost adjustments. National models for "whole school designs" are sometimes used to develop blueprints for constructing best practice schools. However, many advocates of professional expert models prefer not to make too many adjustments to the outcomes from the initial study. They suggest that it is the transparency with which the school costs are identified that makes this model most appealing to policymakers and voters. Assuming that decisions to change school funding levels will always be a political process, it is important that the cost estimates can be clearly understood and arrived at through a process of consultation.

Conclusion

Linking school finance to school performance outcomes is here to stay. Providing access to an adequate education has supplanted providing equality of resources as a guide to school finance policy. However, defining what is adequate can take many forms and still requires considerable judgement as well as political packaging. In addition, other factors must be addressed. For example, what is the relationship between adequacy and cost-efficiency in providing education? Are resources being managed efficiently by schools that are creating acceptable levels of student performance, or are some of these resources wasted? In addition, should schools be held fully accountable for student outcomes when so many other household and community factors beyond the schools' control influence student performance?

Perhaps the most controversial question is whether standardized tests should be used to determine what constitutes adequate performance? Many of the attributes identified by

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courts and state legislatures as components of an adequate education are not captured by standardized tests. The tests provide one metric for evaluating student performance but, given controversy over test bias and measurement issues, it is unlikely that student performance on standardized tests will be fully accepted as the single standard of education adequacy.

[1] Millage is a property tax term. A tax of 6 mills would equal $6 per $1,000 of assessed valuation

[2] The foundation allowance establishes a minimum per pupil spending level for all school districts. Districts lacking sufficient local revenues to provide the allowance will receive state assistance.

[3] David Arsen and David N. Plank, 2003, "Michigan school finance under Proposal A: State control, local consequences," Michigan State University, November, p. 17.

[4] In 2001, Michigan's current expenditure per pupil was $7,139, ranking tenth highest in the country and 11.4% above the U.S. average. See U.S. Department of Education, National Center for Education Statistics. Studies also indicate that between 1992 and 2000, Michigan registered the sixth largest point gain on the National Assessment of Education Progress.

[5] Adequacy standards have been determined in court rulings in states including Kentucky, Alabama, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Ohio, Tennessee, and Wyoming. For more on the legal history of educational adequacy, see Paul A. Minorini and Stephen Sugarman, 1999, "Educational adequacy and the courts," in *Equity and Adequacy in Education Finance: Issues and Perspectives*, Helen Ladd, Rosemary Chalk, and Janet Hansen (eds.), National Academy of Sciences.

[6] Pauley v. Kelly, West Virginia Supreme Court, 1979.

[7] Studies cited in James W. Guthrie and Richard Rothstein, 1999, "Enabling adequacy to achieve reality: Translating adequacy in state school financing distribution arrangements," in *Equity and Adequacy in Education Finance: Issues and Perspectives*, Helen Ladd, Rosemary Chalk, and Janet Hansen (eds.), National Academy of Sciences, p. 221.

[8] J. Chambers and T. Parish, 1994, "State level education finance," in *Cost and Analysis for Education Decisions: Methods and Examples, Advances in Educational Productivity*, Vol 4, W. S. Barnett (ed.), Greenwich, CT: JAI Press.